Thesis Title Factors Association with Motorcycle Injuries According to Severity : A Study Based on Hospitals in Metropolitan

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ABSTRACT

The purpose of this research was to analyse factors which effected the severity of injury according to motorcycle accidents. Three hundred patients admitted because of motorcycle accidents were randomly from Vajira hospital, Central hospital, Charoenkrung-pracharak hospital and Taksin hospital. Data were collected by interviewing the patients with questionaires and the registration from emergency section and hospital record. The severity of injury among 3 groups of them setting with minor injury 104 cases, moderate injury 74 cases and severe injury 122 cases which were devided by Abbreviated Injury Scale-AIS. Twenty eight variables were suspected to effected the severity of injury according to motorcycle accidents. Then, discriminant function was contructed by using direct discriminant analysis.

The results revealed that the severity of injury caused by motorcycle accidents were significantly effected by 10 discriminating variables, ordered from the most to the least

important, as following : the type of accident occured in the part, driving habit, marrital status, speed of the car before accident, climate, road condition, mental status before accident, minor injury treated by himself and caused by accident, physical status before accident and traffic condition.

Two model of discriminant function were carried out. The first discriminant function was statistically singnificant $p < 0.0001$ which Eigenvalue equals to 0.2456 and Canonical correlation equals to 0.4440. The second discriminant function was statistically significant at $p < 0.05$ which Eigenvalue equals to 0.0632 and Canonical correlation equals to 0.2437. From the analysis, the two discriminant function had 56.67 percent of corrected classification.

Using two functions which were derived from discriminant analysis to predict the severity of motorcycle injury should be aware.